NonProfit Foundations

# Introduction:

The purpose of this project was to identify non-profits with the highest potential for success. After building the predictive model we are hopefully able to best identify which organizations to give money to, with little error.

## Data Preprocessing:

The target in this instance is the variable “is\_successful”, where we are trying to determine which organizations fail or succeed. On the other hand the features in this instance are “application\_type”, “classification”, ‘Income\_amount”, and “ask\_amount”. Both variables name and ein are not important to predict outcome so they were removed.

### Compiling, Training, and Evaluating the Model:

I used three hidden layers to try to achieve the desired outcome of 75%, I was able to get it around 74.8% but was never able to reach the target outcome. 1 outcome layer was used as well because we are trying to identify if it is a pass or fail in a way. I could have added more layers but you sacrifice other things when doing that so 3 layers felt best to me.

#### Summary:

There are a variety of things we could do to try to fix this model. Random Forests looked interesting and I would recommend giving that one a shot for this model in particular. I’m not very familiar with this model in particular but based on what I have read from other people it seems to do well with this sort of data. Potentially giving us a very high accuracy.